

REMARKS

Reconsideration and allowance of the above reference application are respectfully requested.

Initially, claim 10 stands rejected under 35 USC 103 as allegedly being unpatentable over Yamazaki in view of King. This contention, however, is respectfully traversed, and it is respectfully suggested that the rejection does not meet the patent office's burden of providing a *prima facie* showing of unpatentability.

Independent claim 10 recites coils whose diameter are monotonically increased as the flow of ions extends down stream. This is supported by for example reference 51 in figure 6A and 6B. It is respectfully suggested that the rejection does not address this feature in the official action at all. Moreover, this is an important feature, and is not found or suggested in either Yamazaki '876 nor in King '405. Accordingly, and for these reasons, it is respectfully suggested that the rejection of claim 10 does not make a proper *prima facie* showing of unpatentability and therefore this rejection should be withdrawn.

Claims 21 and 25 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Yamazaki '876 in view of Aitken '793. Claims 21 and 25 have been amended to recite

similar subject matter to that recited in claim 10 above, and specifically coils whose diameter is monotonically decreased as the flow of the ion currents extends down stream. This is not taught or suggested in either Yamazaki or Aitken and it is respectfully suggested that this feature renders these claims allowable. This should render all claims allowable and should hence obviate the rejection under 35 USC 103.

New claims 46 and 50 recite that the first magnetic field has the same magnitude as the second magnetic field and an opposite direction to the second magnetic field. This is supported at least in figure 5A and page 18 lines 1-4 of the specification. Moreover, this combination is not taught or suggested by the cited prior art. New claims 54 and 58 recite means for applying an electric field and a magnetic field to the ion current and to separate the ion current into at least two ion currents on a mass basis. This is supported in figure 9 and page 30 lines 18-20. These claims are also respectfully suggested to distinguish over the cited references.

Each of these claims should hence be allowable.

An information disclosure statement is also filed herewith.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

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Respectfully submitted,

  
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